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Geotechnical

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September 5, 2000 Project No. 97664V3

Ms. Brenda Pohlmann Nevada Division of Environmental Protection 555 E. Washington, Suite 4300 Las Vegas, NV 89101-1049

RE: Results of monthly surface water sampling of the Las Vegas Wash at the Northshore Road bridge.

Dear Ms. Pohlmann:

Per your request, Geotechnical & Environmental Services, Inc. (GES) obtained a surface water sample from the Las Vegas wash on August 28, 2000 near the Northshore Road Bridge. We sent this sample, under chain-of-custody protocol, to NEL Laboratories (NEL) for laboratory analysis of perchlorate. NEL's analysis revealed a perchlorate concentration of 510 micrograms per Liter (μ g/L). The NEL report is included with this letter, along with the Perchlorate Summary Table for 2000.

In addition to the sample we collected and submitted to NEL, a split sample was collected per the request of Mr. Kevin Mayer, with the US Environmental Protection Agency (USEPA). This split sample was collected at the same time and in the same manner as the sample submitted to NEL, and was sent, under chain-of-custody protocol, to the USEPA Laboratory in Richmond, California.

Our services were performed using that degree of care and skill ordinarily exercised under similar circumstances by reputable engineering firms in this or similar localities. No other warranty, either express or implied, is included or intended in this report. We appreciate this opportunity to provide our services. If you have any questions regarding these results, please feel free to call us at 365-1001.

Sincerely,

Geotechnical & Environmental Services, Inc.

Richard Cooke Staff Geologist

Riland Cooks

Daniel C. Burns, C.E.M.* #1692 (Expires 10/07/2001) Project Manager

* "I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances."

Enc: 2000 Perchlorate Summary Table

NEL Analytical Report

1 faxed to addressee at 486-2863 1 original mailed to addressee

cc: fax to Jeff Gibson, American Pacific Corporation

cc: mail to Kevin Mayer, USEPA SFD 72, 75 Hawthorne Street, San Francisco, CA 94105

cc: to project file 97664V3

7560 W. Sahara Ave., Suite 101 Las Vegas, NV 89117 (702) 365-1001 • Fax (702) 341-7120 www.gesnevada.com

Dist:

Las Vegas Wash at Northshore Road Bridge 2000 Summary of Perchlorate Concentrations

Date Sampled	Perchlorate (μg/L)							
1/27/00	569							
2/28/00	720							
3/29/00	870							
4/27/00	750							
5/30/00	740							
6/28/00	410							
7/27/00	650							
8/28/00	510							

Reno . Las Vegas . Boise Phoenix . Sacramento

Las Vegas Division 4208 Arcata Way, Suite A . Las Vegas, NV 89030 (702) 657-1010 · Fax: (702) 657-1577 1-888-368-3282

CLIENT:

Geotechnical & Env. Serv.

7560 West Sahara Ave. #101

Las Vegas, NV 89117

ATTN:

Dan Burns

PROJECT NAME:

FPF

PROJECT NUMBER: 97664 V3

NEL ORDER ID: L0008316

Attached are the analytical results for samples in support of the above referenced project.

Samples submitted for this project were not sampled by NEL Laboratories. Samples were received by NEL in good condition, under chain of custody on 8/28/00.

Should you have any questions or comments, please feel free to contact our Client Services department at (702) 657-1010.

Stan Van Wagenen Laboratory Manager

CERTIFICATIONS:

Reno AZ0520

Arizona California

1707 Certified

AZ0518 2002

AZ0605 2264

Las Vegas S. California

Las Vegas S. California Reno Certified Certified

Certified Certified NV052 NV033

CA084

US Army Corps of Engineers

Certified

L.A.C.S.D.

Nevada

Idaho

Montana

10228

NEL LABORATORIES

CLIENT:

PROJECT #:

Geotechnical & Env. Serv.

PROJECT ID:

FPF 97664 V3 CLIENT ID:

North Shore Road Bridge

DATE SAMPLED: 8/28/00

NEL SAMPLE ID: L0008316-01

TEST:

Inorganic Non-Metals

MATRIX:

PARAMETER

Perchlorate

Aqueous

REPORTING

200.

RESULT LIMIT

510

D.F.

50

UNITS $\mu g/L$

8/29/00

D.F. - Dilution Factor

ND - Not Detected

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NEL LABORATORIES

CLIENT: PROJECT ID: Geotechnical & Env. Serv.

PROJECT #:

FPF

97664 V3

Non-Metals

CLIENT ID:

Method Blank

DATE SAMPLED: NA

NEL SAMPLE ID: 000829CLO4-BLK

REPORTING

PARAMETER

LIMIT

D.F.

UNITS

Perchlorate

TEST:

ND

µg/L

8/29/00

D.F. - Dilution Factor

ND - Not Detected

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CHAIN OF CHATOOK

NEL Work Order: 1800 85/6

42	2	Marculac, PION	Relinquished by (Print)	Custody Seal intact? Y N None Condition when received			·	1	N N	Time/Date Sampled Customen	Requested Turnaround: \$\square\$ 5	cining Additions	Phone Number 707-365-1601	_	Company:	GES	Las Vegas Division • 4206 Arcata Way, Ste. A • Las Vegas, NV 89030 702-657-1010 • Fax: 702-557-1577 • 889-368-3282		
	who at	1100110	(Signature)	N (None 76m) 22 when received good					ROAD BRIDGE	Customer Sample Identification Id	5-day 2-day 1-day	S	Fax Number: 702 - 341-7120	L.V. INV. 89117	Attention:		s Division • 4208 Arcata Way, Ste. A • Las Vegas, NV 880 702-657-1010 • Fax 702-557-1577 • 889-368-3282	rnoenx • So. California	Reno · Las Vegas · Boise
		8-28-00 1025	Date/Time	p.*				,	0/ 11 180 E	# of	Containing (Bo						'	Project Name: FPF	
		AD JUNA	Received by (Print)	Box #1 DW - Dirining Water WW - Waste Water OL - ONCagarize Liquid					×	(A)	The state of the s				Analysis		Number: 1777	FPF	
			(Signature)	SD - Solis AG - Aqueous A - Air													Sampled By. M. KIEK	ridecti Number 916413	1 1
		rollow ray	Date/Time/	A. HC) E. Ica Only B. HND F. Other C. H,SD, G. Not Preserved D. NaOH	والمراجعة				ž.	Remarks								NB	

The liability of NEL Laboratories inc. is limited strictly to the price of sample analysis for those samples received in good condition by NEL NEL is not responsible for loss, damage, resempling costs and/or quastied data related to samples not received in good condition, including a dequate sample sample sample volume and number of conditions. Signature of this CoC constitutes acceptance of NEL Standard List Prices for all earnines ordered here on, except those specified otherwise via an NEL Quotetion for Testing Sentices in effect at the time of sample receipt. NEL turnscund times are measured in regular working days. Samples received at the laboratory after 16:30 will be considered received on the next working day. Committeer of laboratory to the requested turns out of the sample (Confirmation transmitted to the fax number provided above.